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EXAMINER	
LAM, HENRY S	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/797,529	POYHONEN ET AL.	
	Examiner	Art Unit	
	HENRY LAM	2616	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *10 March 2004*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-59* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-59* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *10 March 2004 and 21 July 2005*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1-2, 4-6, 11-13, 14-17, 18-19, 21-23, 28-30, 32-34, 35-36, 38-40,45-47, 49-51, 52-54, 56, and 58-59 are rejected under 35 U.S.C. 102(e) as being anticipated by **Parker et al (US 6,690,407 B1)**.

For claim 1, **Parker et al** disclose a system for establishing an Internet Protocol (IP) connection, with a terminating node the system comprising:

an originating node (fig 4 block 10, user #1) capable of initiating communication with the terminating node (fig 4 block 10, user #2); and an intermediate node located between the originating node and the terminating node (fig 4 block 13, central server, switches or routers), wherein the originating node is capable of

initiating communication with the terminating node in a manner based upon at least one parameter for communication with at least one of the intermediate node and the terminating node (column 5 lines 53-59, connection setup), wherein the originating node is capable of initiating communication by one of requesting communication with the terminating node via the intermediate node (column 5 lines 30-33, central server router perform connection setup), and notifying the terminating node of incoming data independent of the intermediate node (column 5 lines 56-63, notifying the terminating node and data exchange independent from central server), wherein one of the originating node and the intermediate node is capable of notifying the terminating node of incoming data when the originating node initiates communication by requesting communication with the terminating node via the intermediate node (column 5 lines 37-46, connection setup to intermediate node), and wherein the terminating node, upon being notified of incoming data, is capable of registering with the intermediate node to thereby enable IP communication between the originating node and the terminating node via the intermediate node (column 4 lines 58-60, user registered).

For claim 2, **Parker et al** disclose wherein the originating node is capable of notifying the terminating node of incoming data further in accordance with a non-IP-based communication technique when the originating node initiates communication by notifying the terminating node of incoming data, and wherein one of the originating node and the intermediate node is capable of notifying the terminating node of incoming data further in accordance with a non-IP-based

communication technique when the originating node initiates communication by requesting communication with the terminating node via the intermediate node (fig 4 blocks 10 & 11; and column 7 lines 5-11, direct packet exchange for non-IP based).

For claim 4, **Parker et al** disclose wherein the originating node is capable of notifying the terminating node of incoming data further in accordance with at least one wireless communication technique when the originating node initiates communication by notifying the terminating node of incoming data, and wherein one of the originating node and the intermediate node is capable of notifying the terminating node of incoming data further in accordance with the at least one wireless communication technique when the originating node initiates communication by requesting communication with the terminating node via the intermediate node (column 4 lines 33-67, the technique is applied for plurality telecommunication including mobile communication).

For claim 5, **Parker et al** disclose wherein the originating node is capable of initiating communication, and thereafter communicating, with the terminating node in accordance with a plurality of different communication techniques (see fig 1, 2, 3, 4, 5 & 8, for different communication techniques).

For claim 6, **Parker et al** disclose wherein the originating node is capable of requesting communication with the terminating node via the intermediate node

sending a domain name service (DNS) query to at least one of a plurality of DNS servers to thereby trigger the at least one of a plurality of DNS servers to communicate with the intermediate node to request communication with the terminating node (column 4 lines 5-19, DNS servers).

For claim 11, **Parker et al** disclose wherein the terminating node is capable of registering with the intermediate node such that the intermediate node creates a registration entry that includes a public IP address assigned to the terminating node, and wherein the originating node is capable of communicating with the terminating node such that the intermediate node operates as a proxy based upon the registration entry (column 2, lines 20-32. assigning a public IP address).

For claim 12, **Parker et al** disclose wherein the public IP address assigned to the terminating node comprises a public IP address assigned to the terminating node by a network address translator (NAT), wherein the intermediate node is capable of receiving data from the originating node, and forwarding the data based upon the public IP address such that the NAT is capable of transforming the public IP address assigned to the terminating node into a private IP address associated with the terminating node, and thereafter forwarding the data from the NAT to the terminating node based upon the private IP address of the terminating node (column 2, lines 20-32. assigning a public IP address).

For claim 13, **Parker et al** disclose wherein the originating node comprises

one of a mobile terminal and a fixed terminal, and wherein one of the mobile terminal and fixed terminal is capable of notifying the terminating node of incoming data (column 4 lines 33-67, notification to the user).

For claim 15, **Parker et al** disclose further comprising:
at least one of a network address translator (NAT) and a firewall (FW) located between the intermediate node and the terminating node, wherein one of the originating node and the intermediate node is capable of communicating with the at least one of the NAT and FW to thereby trigger the at least one of the NAT and FW to notify the terminating node of incoming data (column 5 lines 29-52, NAT and FW at the intermediate node and terminating node).

For claim 16, **Parker et al** disclose wherein one of the originating node and the intermediate node is capable of communicating with the at least one of the NAT and FW such that the at least one of the NAT and FW communicates with a network gateway support node to thereby trigger the network gateway support node to notify the terminating node of incoming data (column 5 lines 29-52, NAT and FW at the intermediate node and terminating node).

For claim 17, **Parker et al** wherein one of the originating node and the intermediate node is capable of communicating with another network node to thereby trigger the other network node to notify the terminating node of incoming data (column 5 lines 56-63, notifying the terminating node and data exchange

independent from central server).

For claim 18, **Parker et al** disclose a method of establishing an Internet Protocol (IP) connection with a terminating node, the method comprising:
receiving a notification of incoming data at the terminating node from one of an originating node and an intermediate node located between the originating node and the DNS terminating node; and registering the terminating node with the intermediate node in response to receiving the notification at the terminating node to thereby enable IP communication between the originating node and the terminating node via the intermediate node (column 4 lines 5-19, DNS servers; and fig 3 blocks 10, 13 & 11, communication setup).

For claim 19, **Parker et al** disclose wherein notifying the terminating node comprises notifying the terminating node of incoming data further in accordance with a non-IP-based communication technique (fig 4 blocks 10 & 11; and column 7 lines 5-11, direct packet exchange for non-IP based) .

For claim 21, **Parker et al** disclose wherein notifying the terminating node comprises notifying the terminating node of incoming data further in accordance with at least one wireless communication technique (column 4 lines 33-67, the technique is applied for plurality telecommunication including mobile communication).

For claim 22, **Parker et al** disclose further comprising:

communicating between the originating node and the terminating node, wherein notifying the terminating node and communicating between the originating node and terminating node occur in accordance with a plurality of different communication techniques (see fig 1, 2, 3, 4, 5 & 8, for different communication techniques).

For claim 23, **Parker et al** disclose further comprising:

requesting communication with the terminating node from the originating node via the intermediate node by sending a domain name service (DNS) query to at least one of a plurality of DNS servers to thereby trigger the at least one of a plurality of DNS servers to communicate with the intermediate node such that the intermediate node notifies the terminating node of incoming data (column 4 lines 5-19, DNS servers; and fig 3 blocks 10, 13 & 11, communication setup).

For claim 28, **Parker et al** disclose wherein registering the terminating node comprises registering the terminating node such that the intermediate node creates a registration entry that includes a public IP address assigned to the terminating node, and wherein the method further comprises:

communicating between the originating node and the terminating node via the intermediate node such that the intermediate node operates as a proxy based upon the registration entry (column 4 lines 58-60 and fig 3, user registered).

For claim 29, **Parker et al** disclose wherein the public IP address assigned to the terminating node comprises a public IP address assigned to the terminating node by a network address translator (NAT), and wherein communicating comprises: receiving data from the originating node at the intermediate node; and forwarding the data based upon the public IP address such that the NAT is capable of transforming the public IP address assigned to the terminating node into a private IP address associated with the terminating node, and thereafter forwarding the data from the NAT to the terminating node based upon the private IP address of the terminating node (column 2, lines 20-32. assigning a public IP address).

For claim 30, **Parker et al** disclose wherein the originating node comprises one of a mobile terminal and a fixed terminal, and wherein receiving a notification comprises receiving a notification from one of the mobile terminal and fixed terminal (column 4 lines 33-67, the technique is applied for plurality telecommunication including mobile communication; and column 5 lines 53-59, connection setup).

For claim 32, **Parker et al** disclose wherein receiving a notification comprises receiving a notification from at least one of a network address translator (NAT) and a firewall (FW) located between the intermediate node and the terminating node, and wherein receiving a notification comprises receiving a

notification in response to the at least one of the NAT and FW being triggered by one of the originating node and the intermediate node to notify the terminating node of incoming data (column 5 lines 29-52, NAT and FW at the intermediate node and terminating node)..

For claim 33, **Parker et al** disclose wherein receiving a notification comprises receiving a notification from a network gateway support node in response to the network gateway support node being triggered by at least one of the NAT and FW to notify the terminating node of incoming data (column 5 lines 29-52, NAT and FW at the intermediate node and terminating node).

For claim 34, **Parker et al** wherein receiving a notification comprises receiving a notification from another network node in response to the other network node being triggered by one of the originating node and the intermediate node to notify the terminating node of incoming data (column 5 lines 56-63, notifying the terminating node and data exchange independent from central server).

For claim 35, **Parker et al** disclose A terminal comprising:
a controller capable of receiving a notification of incoming data from one of an originating node and an intermediate node located between the originating node and the terminal (column 5 lines 53-59, connection setup), wherein the controller is also capable of registering the terminal with the intermediate node in response

to receiving the notification to thereby enable IP communication between the originating node and the terminal via the intermediate node (column 4 lines 58-60 and fig 3, user registered).

For claim 36, **Parker et al** disclose wherein the controller is capable of receiving the notification further in accordance with a non-IP-based communication technique (column 4 lines 58-60 and fig 3, user registered).

For claim 38, **Parker et al** disclose wherein the controller is capable of receiving the notification further in accordance with at least one wireless communication technique (column 4 lines 33-67, the technique is applied for plurality telecommunication including mobile communication).

For claim 39, **Parker et al** disclose wherein the controller is further capable of communicating with the originating node, and wherein the controller is capable of receiving the notification and communicating with the originating node in accordance with a plurality of different communication techniques (see fig 1, 2, 3, 4, 5 & 8, for different communication techniques).

For claim 40, **Parker et al** disclose wherein the controller is capable of receiving the notification in response to the originating node requesting communication with the terminal via the intermediate node by sending a domain name service (DNS) query to at least one of a plurality of DNS servers to thereby

trigger the at least one of a plurality of DNS servers to communicate with the intermediate node such that the intermediate node sends the notification to the terminal (column 4 lines 5-19, DNS servers; and fig 3 blocks 10, 13 & 11, communication setup).

For claim 45, **Parker et al** disclose wherein the controller is capable of registering the terminal such that the intermediate node creates a registration entry that includes a public IP address assigned to the terminal (column 2, lines 20-32. assigning a public IP address), and wherein the controller is capable of communicating with the originating node via the intermediate node such that the intermediate node operates as a proxy based upon the registration entry (column 4 lines 58-60 and fig 3, user registered).

For claim 46, **Parker et al** disclose wherein the public IP address assigned 20 to the terminal comprises a public IP address assigned to the terminal by a network address translator (NAT), and wherein the controller is capable of communicating with the originating node such that the intermediate node receives data from the originating node, and forwards the data based upon the public IP address such that the NAT is capable of transforming the public IP address assigned to the terminal into a private IP address associated with the terminal, and thereafter forwarding the data from the NAT to the controller based upon the private IP address of the terminal (column 5 lines 29-52).

For claim 47, **Parker et al** disclose wherein the originating node comprises one of a mobile terminal and a fixed terminal, and wherein the controller is capable of receiving the notification from one of the mobile terminal and fixed terminal (column 4 lines 33-67, the technique is applied for plurality telecommunication including mobile communication).

For claim 49, **Parker et al** disclose wherein the controller is capable of receiving the notification from at least one of a network address translator (NAT) and a firewall (FW) located between the intermediate node and the terminal, and wherein the controller is capable of receiving the notification in response to the at least one of the NAT and FW being triggered by one of the originating node and the intermediate node to notify the terminal of incoming data (column 5 lines 29-52, NAT and FW at the intermediate node and terminating node)..

For claim 50, **Parker et al** disclose wherein the controller is capable of receiving the notification from a network gateway support node in response to the network gateway support node being triggered by at least one of the NAT and FW to notify the terminal of incoming data (column 5 lines 29-52, NAT and FW at the intermediate node and terminating node).

For claim 51, **Parker et al** disclose wherein the controller is capable of receiving the notification from another network node in response to the other

network node being triggered by one of the originating node and the intermediate node to notify the terminal of incoming data (column 5 lines 1-28).

For claim 52, **Parker et al** disclose a system for establishing an Internet Protocol (IP) connection comprising:
a network address translator (NAT) located between an originating node and a terminating node, wherein the NAT is capable of receiving a communication request from a network node, and in response to the connection request, notifying the terminating node of incoming data such that the terminating node registers with an intermediate node located between the originating node and the NAT to thereby enable IP communication between the originating node and the terminating node via the intermediate node (column 5 lines 28-52, connection setup with NAT address, intermediate node and user nodes).

For claim 53, **Parker et al** disclose wherein the NAT is capable of notifying the terminating node via a network gateway support node of a network including the terminating node (fig 2 blocks 10, 13, 14 and 11).

For claim 54, **Parker et al** disclose wherein the NAT is capable of receiving the communication request from one of the originating node and the intermediate node (fig 2 blocks 10, 13, 14 and 11).

For claim 58, **Parker et al** disclose further comprising:

an intermediate node capable of receiving a registration message from the terminating node, and thereafter creating a registration entry that includes a public IP address assigned to the terminating node, wherein originating node is capable of communicating with the terminating node such that, and wherein the intermediate node is capable of operating as a proxy during communication between the originating node and the terminating node based upon the registration entry (column 5 lines 28-52, connection setup with NAT address, intermediate node and user nodes column 4 lines 58-60, user registered).

For claim 59, **Parker et al** disclose a terminating node comprising;
a receiving means for receiving a notification of incoming data from one of an originating node and an intermediate node located between the originating node and the terminating node (column 5 lines 53-59, connection setup); and a registering means for registering the terminating node with the intermediate node in response to the receiving means receiving the notification to thereby enable Internet Protocol (IP) communication between the originating node and the terminating node via the intermediate node (column 5 lines 28-52, connection setup with NAT address, intermediate node and user nodes column 4 lines 58-60, user registered).

Claim Rejections - 35 USC § 103

3. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which the subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5. Claims 3, 7-10, 14, 20, 24-27, 31, 37, 41-44, 48, 55 and 57 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Parker et al (US 6,690,407 B1)** in view of **Amin et al (US 6,910,074 B1)**.

For claim 3, **Parker et al** teach the entire claimed invention, as recited in paragraph 2 of this office action, except for wherein non-IP based communication comprises at least one of oral communication, text messaging, radio frequency (RF) Communication, short messaging service (SMS) communication, multimedia messaging service (MMS) communication, and instant messaging. **Amin el al** from the same or similar field of endeavor, teach wherein non-IP based communication comprises at least one of oral communication, text messaging, radio frequency (RF) Communication, short messaging service (SMS) communication, multimedia messaging service (MMS) communication, and instant messaging (column 7 lines 57-59, establish SMS or multimedia service). Thus, it would have been obvious to someone of ordinary skill the art to combine the used of establish SMS or multimedia service of **Amin el al** with the telecommunications over IP of **Parker et al** at the time of the invention. The method of using the establish SMS or multimedia service is implemented as hardware, software or as firmware solutions of **Amin el al** into with telecommunications over IP of **Parker et al.**

The rationale to combine the used of establish SMS or multimedia service of **Amin el al** with the telecommunications over IP of **Parker et al** is that, it provides a technique to text message and multimedia service through the telecommunications network.

For claim 7, **Parker et al** teach the entire claimed invention, as recited in paragraph 2 of this office action, except for wherein the originating node is capable of sending the DNS query to a first DNS server, wherein a second DNS server communicates with the intermediate node to request communication with the terminating node, and wherein the second DNS server comprises one of the first DNS server and a DNS server different from the first DNS server.

Amin el al from the same or similar field of endeavor, teach wherein the originating node is capable of sending the DNS query to a first DNS server, wherein a second DNS server communicates with the intermediate node to request communication with the terminating node, and wherein the second DNS server comprises one of the first DNS server and a DNS server different from the first DNS server (column 19 lines 3-12, DNS performs a lookup).

Thus, it would have been obvious to someone of ordinary skill the art to combine the used of DNS lookup service of **Amin el al** with the telecommunications over IP of **Parker et al** at the time of the invention. The method of using the DNS lookup service is implemented as hardware, software or as firmware solutions of **Amin el al** into with telecommunications over IP of **Parker et al.**

The rationale to combine the used of DNS lookup service of **Amin el al** with the telecommunications over IP of **Parker et al** is that, it provides a technique of directory service through the telecommunications network.

For claim 8, **Parker et al** teach the entire claimed invention, as recited in paragraph 2 of this office action, except for wherein the intermediate node is capable of establishing a tunnel with the terminating node in response to the terminating node registering with the intermediate node, and wherein the originating node is capable of communicating with the terminating node at least partially via the tunnel.

Amin el al from the same or similar field of endeavor, teach wherein the intermediate node is capable of establishing a tunnel with the terminating node in response to the terminating node registering with the intermediate node, and wherein the originating node is capable of communicating with the terminating node at least partially via the tunnel (column 5 lines 59-67; and column 8 lines 9-23, tunneling and IP centric distributed network).

Thus, it would have been obvious to someone of ordinary skill the art to combine the used of DNS lookup service of **Amin el al** with the telecommunications over IP of **Parker et al** at the time of the invention. The method of using the tunneling and IP centric distributed network is implemented as hardware, software or as firmware solutions of **Amin el al** into with telecommunications over IP of **Parker et al.**

The rationale to combine the tunneling and IP centric distributed network of **Amin el al** with the telecommunications over IP of **Parker et al** is that, it provides a technique of tunneling and distributed data service through the telecommunications network.

For claim 9, **Parker et al** disclose wherein the intermediate node is further capable of assigning a public IP address to the terminating node, and wherein the originating node is capable of communicating with the terminating node by sending data based upon the public IP address of the terminating node assigned by the intermediate node (column 2, lines 20-32. assigning a public IP address).

For claim 10, **Parker et al** disclose wherein the intermediate node is capable of establishing the tunnel based upon a registration message from the terminating node via at least one of a network address translator (NAT) and a firewall (FW) located between the intermediate node and the terminating node, and wherein the originating node is capable of communicating with the terminating node at least partially via the tunnel in a manner independent of the at least one of the NAT and the FW (column 5 lines 29-52, NAT and FW at the intermediate node and terminating node).

For claim 14, **Parker et al** teach the entire claimed invention, as recited in paragraph 2 of this office action, except for wherein one of the originating node and the intermediate node comprises a Session Initiation Protocol (SIP) client, and wherein the SIP client is capable of communicating with a SIP proxy to thereby trigger the SIP proxy to notify the terminating node of incoming data.

Amin el al from the same or similar field of endeavor, teach wherein one of the originating node and the intermediate node comprises a Session Initiation Protocol (SIP) client, and wherein the SIP client is capable of communicating with a SIP proxy to thereby trigger the SIP proxy to notify the terminating node of incoming data (column 15 lines 20-39; SIP application provides protocol services to the end users).

Thus, it would have been obvious to someone of ordinary skill the art to combine the used of SIP application of **Amin el al** with the telecommunications over IP of **Parker et al** at the time of the invention. The method of using the SIP application is implemented as hardware, software or as firmware solutions of **Amin el al** into with telecommunications over IP of **Parker et al.**

The rationale to combine the SIP application of **Amin el al** with the telecommunications over IP of **Parker et al** is that, it provides a technique of application-layer control protocol for creating, modifying and terminating session service through the telecommunications network.

For claim 20, **Parker et al** teach the entire claimed invention, as recited in paragraph 2 of this office action, except for wherein notifying the terminating node comprises notifying the terminating node of incoming data further in accordance with at least one of oral communication, text messaging, radio frequency (RF) communication, short messaging service (SMS) communication, multimedia messaging service (MMS) communication, and instant messaging.

Amin el al from the same or similar field of endeavor, teach wherein notifying the terminating node comprises notifying the terminating node of incoming data further in accordance with at least one of oral communication, text messaging, radio frequency (RF) communication, short messaging service (SMS) communication, multimedia messaging service (MMS) communication, and instant messaging (column 7 lines 57-59, establish SMS or multimedia service). Thus, it would have been obvious to someone of ordinary skill the art to combine the used of establish SMS or multimedia service of **Amin el al** with the telecommunications over IP of **Parker et al** at the time of the invention. The method of using the establish SMS or multimedia service is implemented as hardware, software or as firmware solutions of **Amin el al** into with telecommunications over IP of **Parker et al.**

The rationale to combine the used of establish SMS or multimedia service of **Amin el al** with the telecommunications over IP of **Parker et al** is that, it provides a technique to text message and multimedia service through the telecommunications network.

For claim 24, **Parker et al** teach the entire claimed invention, as recited in paragraph 2 of this office action, except for wherein requesting communication comprises requesting communication with the terminating node from the originating node via the intermediate node by sending a DNS query to a first DNS server to thereby trigger a second DNS server to communicate with the intermediate node such that the intermediate node notifies the terminating node of

incoming data, and wherein the second

DNS server comprises one of the first DNS server and a DNS server different from the first DNS server.

Amin el al from the same or similar field of endeavor, teach wherein requesting communication comprises requesting communication with the terminating node from the originating node via the intermediate node by sending a DNS query to a first DNS server to thereby trigger a second DNS server to communicate with the intermediate node such that the intermediate node notifies the terminating node of incoming data, and wherein the second

DNS server comprises one of the first DNS server and a DNS server different from the first DNS server (column 19 lines 3-12, DNS performs a lookup).

Thus, it would have been obvious to someone of ordinary skill the art to combine the used of DNS lookup service of **Amin el al** with the telecommunications over IP of **Parker et al** at the time of the invention. The method of using the DNS lookup service is implemented as hardware, software or as firmware solutions of **Amin el al** into with telecommunications over IP of **Parker et al.**

The rationale to combine the used of DNS lookup service of **Amin el al** with the telecommunications over IP of **Parker et al** is that, it provides a technique of directory service through the telecommunications network.

For claim 25, **Parker et al** teach the entire claimed invention, as recited in paragraph 2 of this office action, except for further comprising:

establishing a tunnel between the intermediate node and the terminating node in

response to registering the terminating node with the intermediate node; and communicating between the originating node and the terminating node at least partially via the tunnel.

Amin el al from the same or similar field of endeavor, teach further comprising: establishing a tunnel between the intermediate node and the terminating node in response to registering the terminating node with the intermediate node; and communicating between the originating node and the terminating node at least partially via the tunnel (column 5 lines 59-67; and column 8 lines 9-23, tunneling and IP centric distributed network).

Thus, it would have been obvious to someone of ordinary skill the art to combine the used of DNS lookup service of **Amin el al** with the telecommunications over IP of **Parker et al** at the time of the invention. The method of using the tunneling and IP centric distributed network is implemented as hardware, software or as firmware solutions of **Amin el al** into with telecommunications over IP of **Parker et al.**

The rationale to combine the tunneling and IP centric distributed network of **Amin el al** with the telecommunications over IP of **Parker et al** is that, it provides a technique of tunneling and distributed data service through the telecommunications network.

For claim 26, **Parker et al** disclose wherein registering the terminating node includes assigning a public IP address to the terminating node, and wherein communicating comprises sending data from the originating node to the

terminating node based upon the public IP address assigned to the terminating node (column 2, lines 20-32. assigning a public IP address).

For claim 27, **Parker et al** disclose wherein establishing a tunnel comprises establishing a tunnel based upon a registration message from the terminating node via at least one of a network address translator (NAT) and a firewall (FW) located between the intermediate node and the terminating node, and wherein communicating comprises communicating between the originating node and the terminating node at least partially via the tunnel in a manner independent of the at least one of the NAT and the FW (column 5 lines 29-52, NAT and FW at the intermediate node and terminating node).

For claim 31, **Parker et al** teach the entire claimed invention, as recited in paragraph 2 of this office action, except for wherein one of the originating node and the intermediate node comprises a Session Initiation Protocol (SIP) client, and wherein receiving a notification comprises receiving a notification from a SIP proxy in response to the SIP proxy being triggered by the SIP client to notify the terminating node of incoming data.

Amin el al from the same or similar field of endeavor, teach wherein one of the originating node and the intermediate node comprises a Session Initiation Protocol (SIP) client, and wherein receiving a notification comprises receiving a notification from a SIP proxy in response to the SIP proxy being triggered by the

SIP client to notify the terminating node of incoming data (column 15 lines 20-39; SIP application provides protocol services to the end users).

Thus, it would have been obvious to someone of ordinary skill the art to combine the used of SIP application of **Amin el al** with the telecommunications over IP of **Parker et al** at the time of the invention. The method of using the SIP application is implemented as hardware, software or as firmware solutions of **Amin el al** into with telecommunications over IP of **Parker et al.**

The rationale to combine the SIP application of **Amin el al** with the telecommunications over IP of **Parker et al** is that, it provides a technique of application-layer control protocol for creating, modifying and terminating session service through the telecommunications network.

37. A terminal according to Claim 36, wherein the controller is capable of receiving the notification further in accordance with at least one of text messaging, radio
fi'equency (RF) communication, short messaging service (SMS) communication, multimedia messaging service (MMS) communication, and instant messaging.

For claim 41, **Parker et al** teach the entire claimed invention, as recited in paragraph 2 of this office action, except for wherein the controller is capable of receiving the notification in response to the originating node requesting communication comprises requesting communication with the terminating node via the intermediate node by sending the DNS query to a first DNS server to

thereby trigger a second DNS server to communicate with the intermediate node such that the intermediate node notifies the terminating node of incoming data, and wherein the second DNS server comprises one of the first DNS server and a DNS server different from the first DNS server.

Amin el al from the same or similar field of endeavor, teach wherein the controller is capable of receiving the notification in response to the originating node requesting communication comprises requesting communication with the terminating node via the intermediate node by sending the DNS query to a first DNS server to thereby trigger a second DNS server to communicate with the intermediate node such that the intermediate node notifies the terminating node of incoming data, and wherein the second DNS server comprises one of the first DNS server and a DNS server different from the first DNS server (column 19 lines 3-12, DNS performs a lookup).

Thus, it would have been obvious to someone of ordinary skill the art to combine the used of DNS lookup service of **Amin el al** with the telecommunications over IP of **Parker et al** at the time of the invention. The method of using the DNS lookup service is implemented as hardware, software or as firmware solutions of **Amin el al** into with telecommunications over IP of **Parker et al.**

The rationale to combine the used of DNS lookup service of **Amin el al** with the telecommunications over IP of **Parker et al** is that, it provides a technique of directory service through the telecommunications network.

For claim 42, **Parker et al** teach the entire claimed invention, as recited in paragraph 2 of this office action, except for wherein the controller is capable of registering the terminal such that the intermediate node establishes a tunnel between the intermediate node and the terminal in response to registering the terminal with the intermediate node, and wherein the controller is capable of communicating with the originating node at least partially via the tunnel.

Amin el al from the same or similar field of endeavor, teach wherein the controller is capable of

registering the terminal such that the intermediate node establishes a tunnel between the intermediate node and the terminal in response to registering the terminal with the intermediate node, and wherein the controller is capable of communicating with the originating node at least partially via the tunnel (column 5 lines 59-67; and column 8 lines 9-23, tunneling and IP centric distributed network).

Thus, it would have been obvious to someone of ordinary skill the art to combine the used of DNS lookup service of **Amin el al** with the telecommunications over IP of **Parker et al** at the time of the invention. The method of using the tunneling and IP centric distributed network is implemented as hardware, software or as firmware solutions of **Amin el al** into with telecommunications over IP of **Parker et al.**

The rationale to combine the tunneling and IP centric distributed network of **Amin el al** with the telecommunications over IP of **Parker et al** is that, it

provides a technique of tunneling and distributed data service through the telecommunications network.

For claim 43, **Parker et al** disclose wherein the controller is capable of registering the terminal such that the intermediate node assigns a public IP address to the terminal, and wherein the controller is capable of receiving data sent from the originating node to the terminal based upon the public IP address assigned to the terminal (column 2, lines 20-32. assigning a public IP address).

For claim 44, **Parker et al** disclose wherein the controller is capable of sending a registration message to the intermediate node via at least one of a network address translator (NAT) and a firewall (FW) located between the intermediate node and the terminal to thereby register the terminal, and wherein the controller is capable of communicating with the originating node at least partially via the tunnel in a manner independent of the at least one of the NAT and the FW (column 5 lines 29-52, NAT and FW at the intermediate node and terminating node).

For claim 48, **Parker et al** teach the entire claimed invention, as recited in paragraph 2 of this office action, except for wherein one of the originating node and the intermediate node comprises a Session Initiation Protocol (SIP) client, and wherein the controller is capable of receiving the notification from a SIP proxy in

response to the SIP proxy being triggered by the SIP client to notify the terminal of incoming data.

Amin el al from the same or similar field of endeavor, teach wherein one of the originating node and the intermediate node comprises a Session Initiation Protocol (SIP) client, and wherein the controller is capable of receiving the notification from a SIP proxy in response to the SIP proxy being triggered by the SIP client to notify the terminal of incoming data (column 15 lines 20-39; SIP application provides protocol services to the end users).

Thus, it would have been obvious to someone of ordinary skill the art to combine the used of SIP application of **Amin el al** with the telecommunications over IP of **Parker et al** at the time of the invention. The method of using the SIP application is implemented as hardware, software or as firmware solutions of **Amin el al** into with telecommunications over IP of **Parker et al.**

The rationale to combine the SIP application of **Amin el al** with the telecommunications over IP of **Parker et al** is that, it provides a technique of application-layer control protocol for creating, modifying and terminating session service through the telecommunications network.

For claim 55, **Parker et al** teach the entire claimed invention, as recited in paragraph 2 of this office action, except for further comprising:

an intermediate node capable of establishing a tunnel with the terminating node in response to the terminating node registering with the intermediate node such that

the originating node is capable of communicating with the terminating node at least partially via the tunnel.

Amin el al from the same or similar field of endeavor, teach further comprising: an intermediate node capable of establishing a tunnel with the terminating node in response to the terminating node registering with the intermediate node such that the originating node is capable of communicating with the terminating node at least partially via the tunnel (column 5 lines 59-67; and column 8 lines 9-23, tunneling and IP centric distributed network).

Thus, it would have been obvious to someone of ordinary skill the art to combine the used of DNS lookup service of **Amin el al** with the telecommunications over IP of **Parker et al** at the time of the invention. The method of using the tunneling and IP centric distributed network is implemented as hardware, software or as firmware solutions of **Amin el al** into with telecommunications over IP of **Parker et al.**

The rationale to combine the tunneling and IP centric distributed network of **Amin el al** with the telecommunications over IP of **Parker et al** is that, it provides a technique of tunneling and distributed data service through the telecommunications network.

For claim 56, **Parker et al** disclose wherein the intermediate node is further capable of assigning a public IP address to the terminating node such that the originating node is capable of communicating with the terminating node by

sending data based upon the public IP address of the terminating node assigned by the intermediate node (column 5 lines 29-52).

For claim 57, **Parker et al** teach the entire claimed invention, as recited in paragraph 2 of this office action, except for wherein the intermediate node is capable of establishing the tunnel based upon a registration message from the terminating node via the NAT, and wherein the intermediate node is capable of establishing a tunnel with the terminating node to permit the originating node to communicate with the terminating node at least partially via the tunnel in a manner independent of the NAT.

Amin el al from the same or similar field of endeavor, teach wherein the intermediate node is capable of establishing the tunnel based upon a registration message from the terminating node via the NAT, and wherein the intermediate node is capable of establishing a tunnel with the terminating node to permit the originating node to communicate with the terminating node at least partially via the tunnel in a manner independent of the NAT (column 5 lines 59-67; and column 8 lines 9-23, tunneling and IP centric distributed network).

Thus, it would have been obvious to someone of ordinary skill the art to combine the used of DNS lookup service of **Amin el al** with the telecommunications over IP of **Parker et al** at the time of the invention. The method of using the tunneling and IP centric distributed network is implemented as hardware, software or as firmware solutions of **Amin el al** into with telecommunications over IP of **Parker et al.**

The rationale to combine the tunneling and IP centric distributed network of **Amin el al** with the telecommunications over IP of **Parker et al** is that, it provides a technique of tunneling and distributed data service through the telecommunications network.

Conclusion

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Furukawa et al (US 2002/0196782 A1) and **D'Souza (US 2003/0058839)** are all cited to show systems, which are considered pertinent to the claimed invention.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Henry Lam whose telephone number is (571) 270-3122. The examiner can normally be reached on Monday to Friday 8:00AM to 5:00PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ricky Q. Ngo can be reached on (571) 272-3139. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Ricky Ngo/
Supervisory Patent Examiner, Art Unit 2616

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